



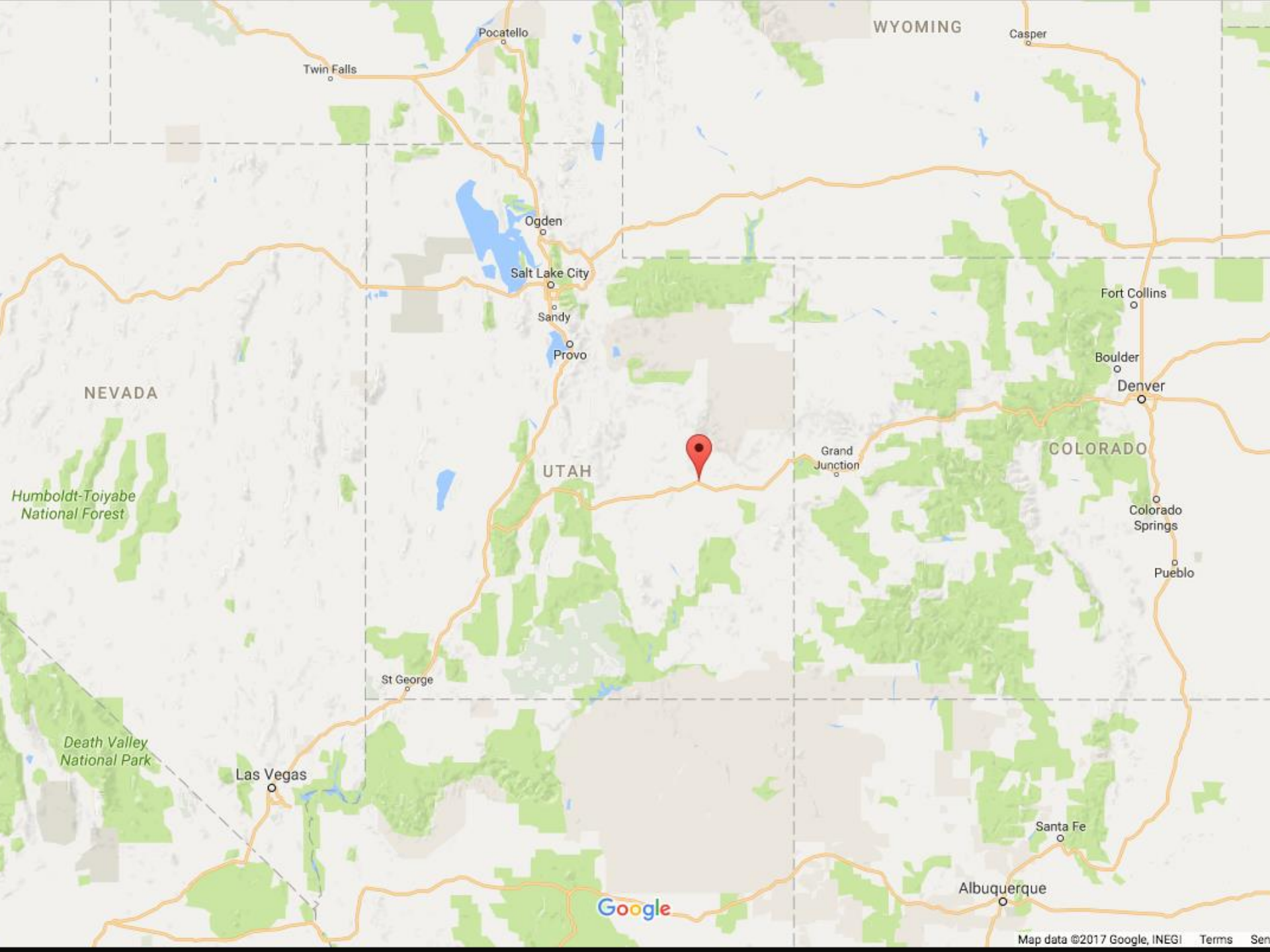
Case Study in Economic Diversification: Epicenter
Green River, Southeast Utah

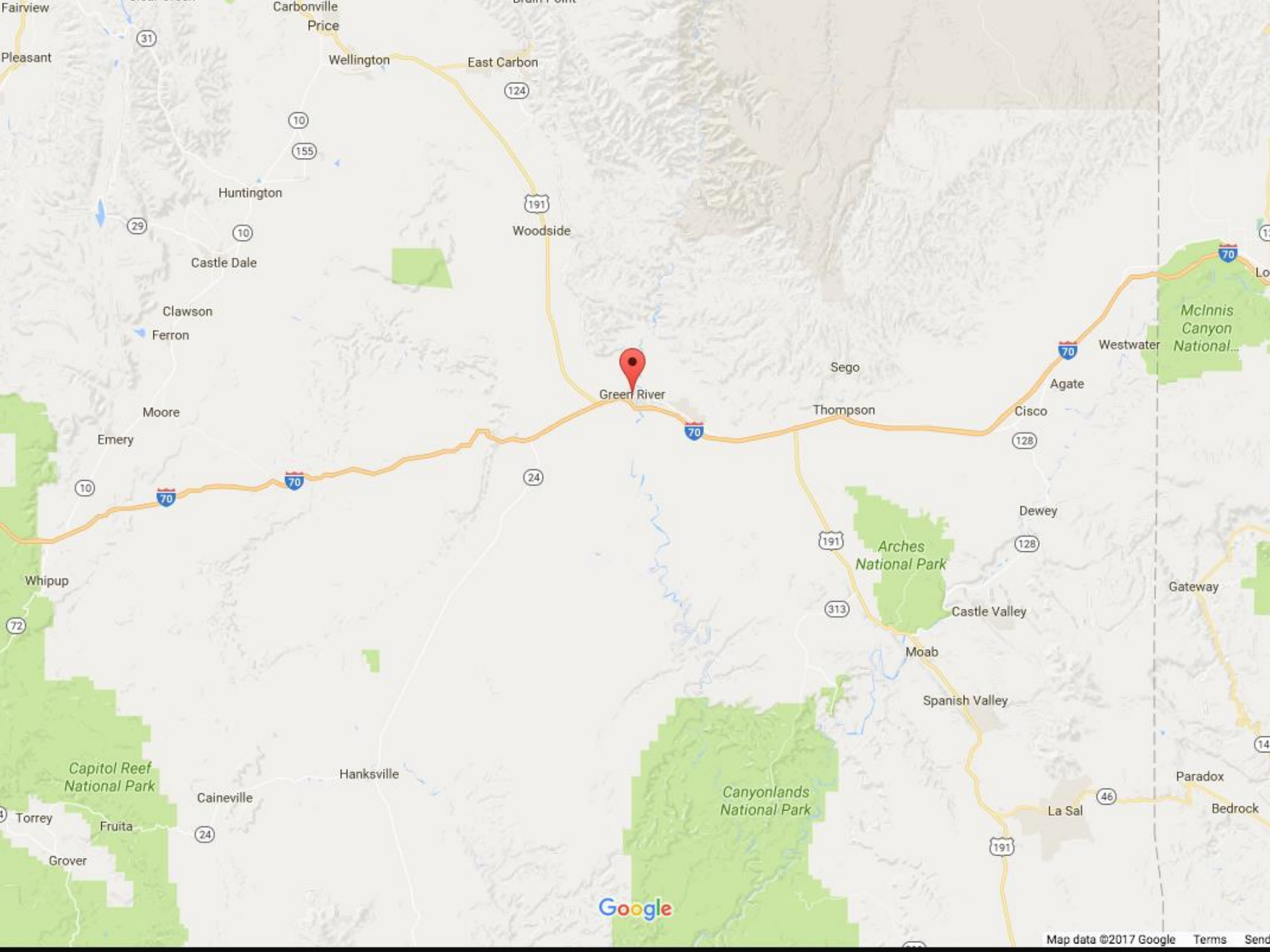
Northern Arizona Economic Outlook Conference

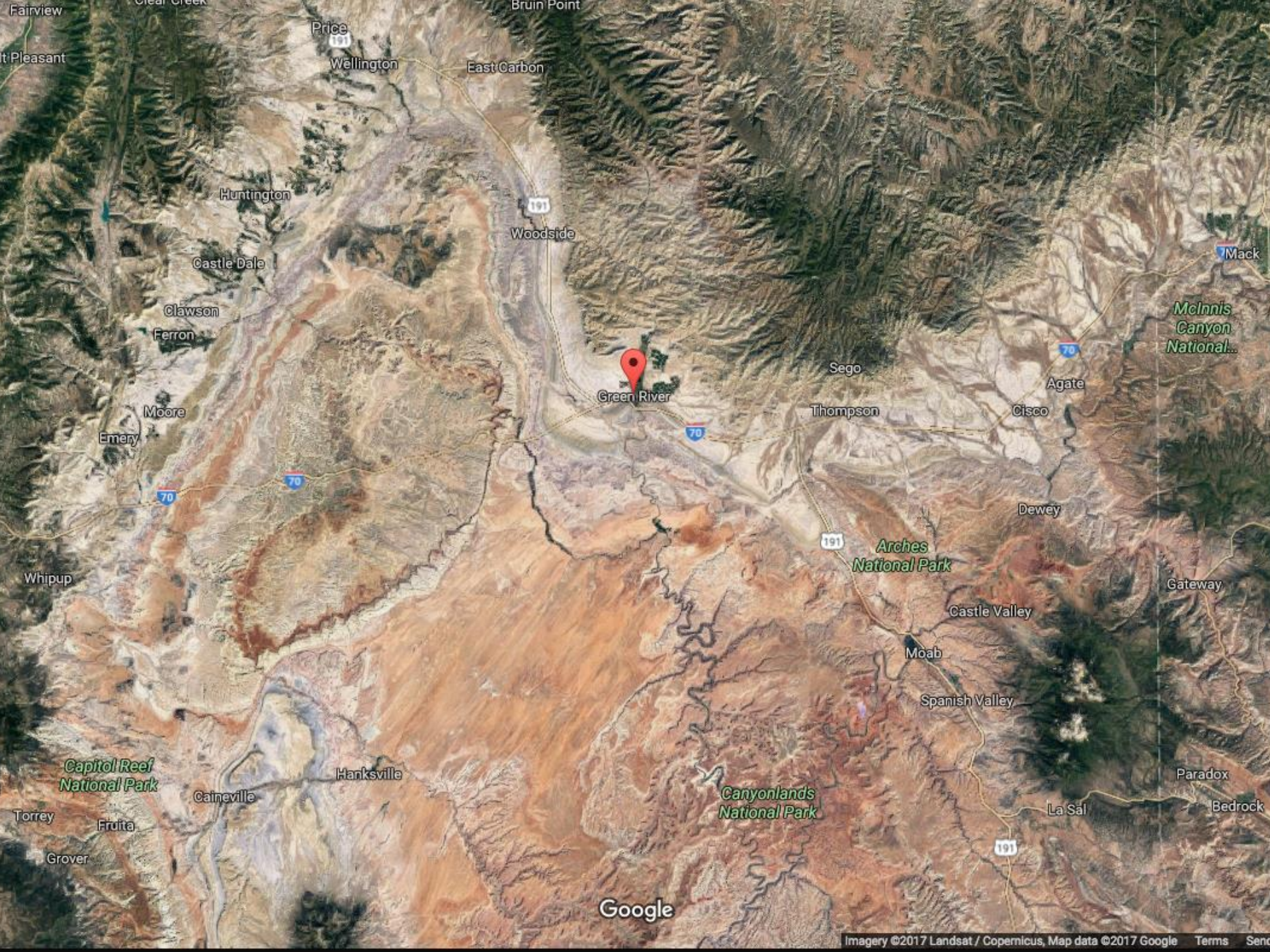
May 18, 2017











Fairview

St Pleasant

Great Creek

Price

Wellington

East Carbon

Huntington

Woodside

Castle Dale

Clawson

Ferron

Moore

Emery

Whipup

Capitol Reef
National Park

Torrey

Fruita

Grover

Caineville

Hanksville

Green River

Sego

Thompson

Arches
National Park

Moab

Spanish Valley

Castle Valley

Dewey

Agate

Cisco

McInnis
Canyon National...

Mack

Gateway

Paradox

Bedrock

La Sal

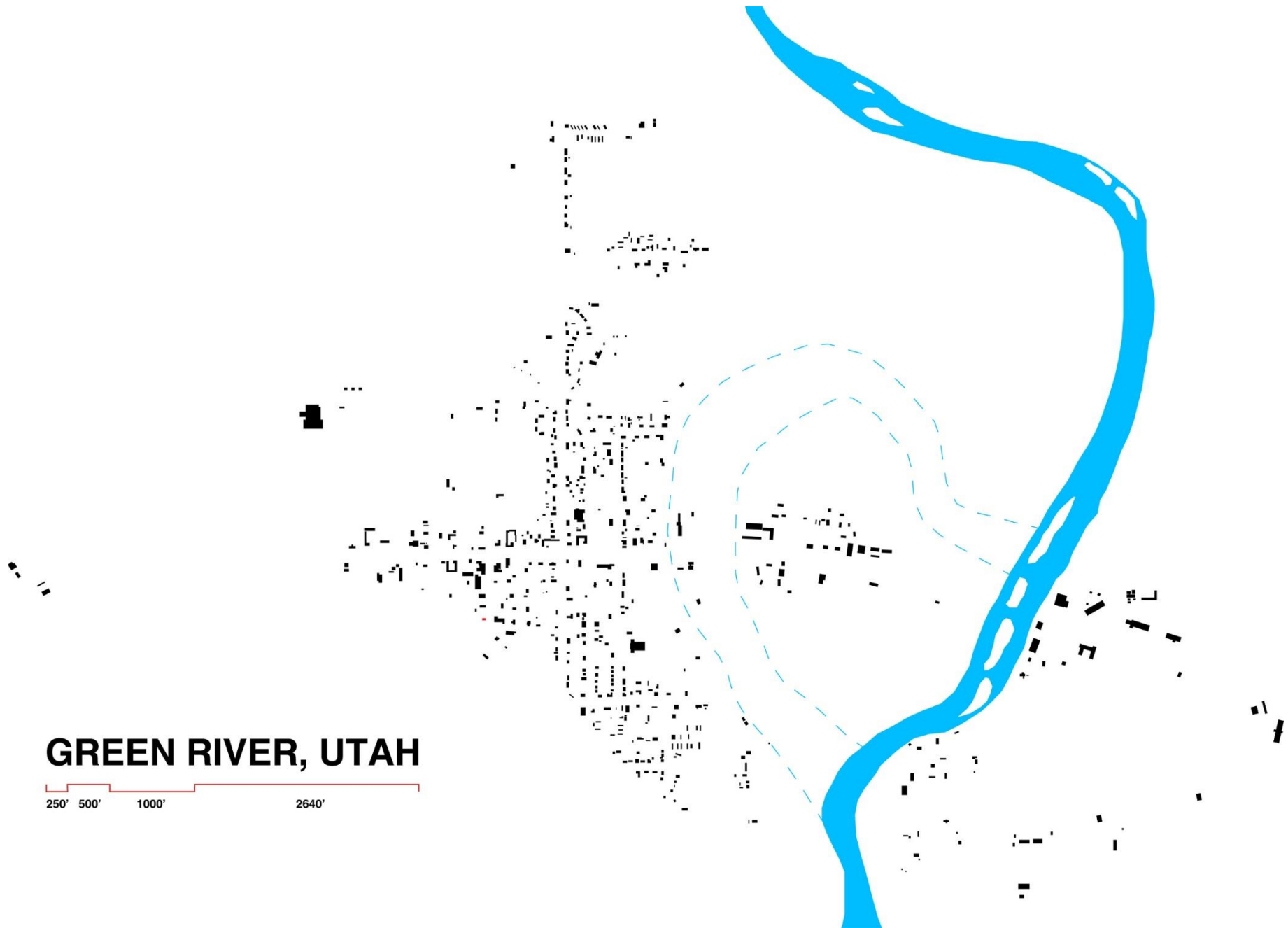
Google











GREEN RIVER, UTAH

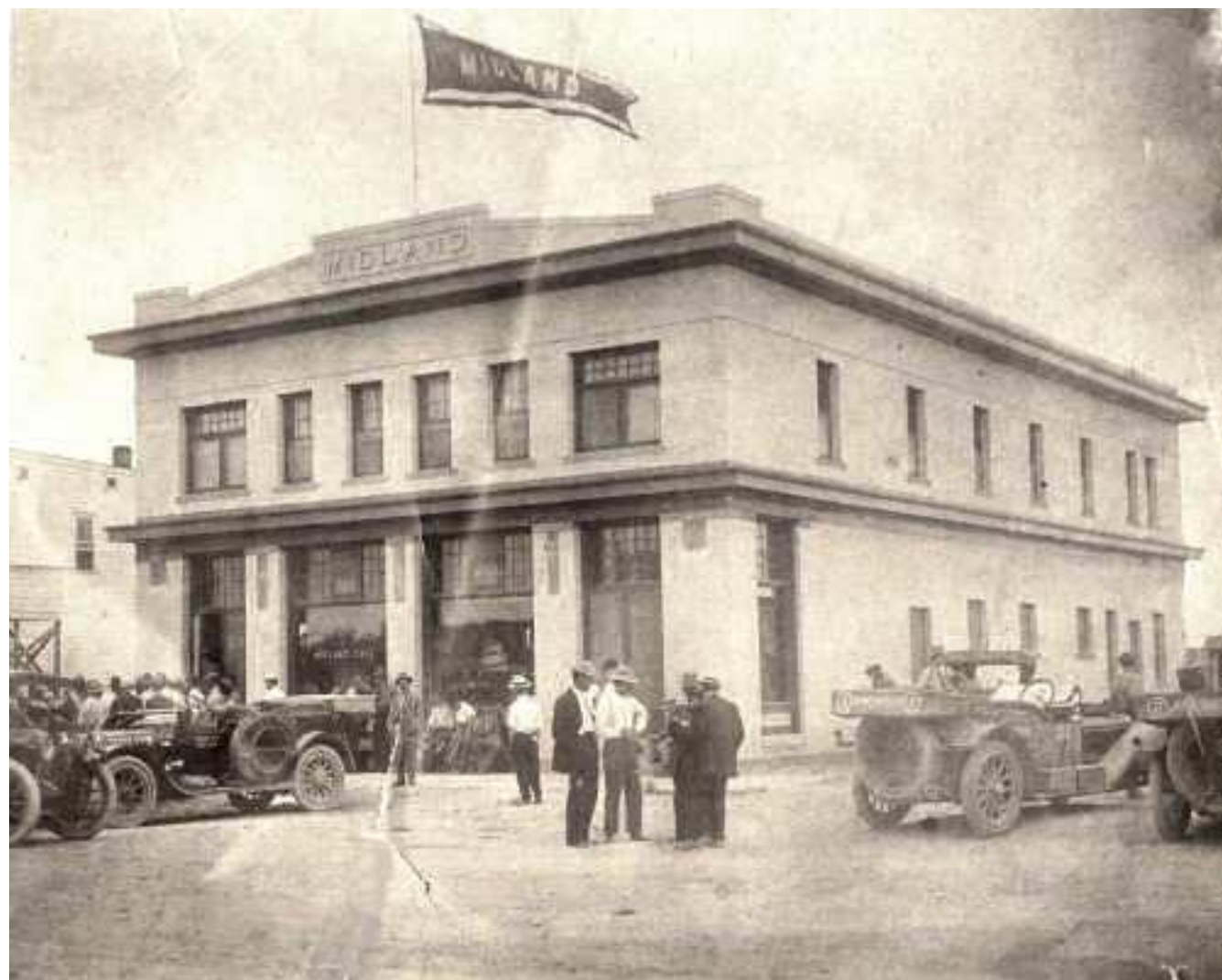






EXIT 162
NEXT SERVICES
ON I-70 110 MILES















Leading the West in New Nuclear Power

HOME ABOUT BASICS FACTS ENVIRONMENT FAQ NEWS CONTACT



Nuclear Power is
Safe, Secure, and Reliable



BlueCastleProject



Blue Castle Holdings Inc. (BCH) is focused on enabling the construction and operation of a two-unit nuclear power plant near Green River, Utah. This first project has been designated as the Blue Castle Project. The complete Federal

NuclearPowerQuestions

Get THE Facts



What is nuclear power and how does it work? We have provided several videos and resource links from various sources. These sources are independent and some will re-direct you to a separate site.

What are the considerations for water use? By using less than 1% of current water diversion in Utah, the Blue Castle Project will increase the electricity produced in Utah by 50%.

Why do Utah and the Western U.S. need new nuclear power? The demand for electrical power in the

CurrentNews

- 4-12-2017 [Nuke plant unaffected by Westinghouse bankruptcy](#)
The Daily Sentinel
- 4-4-2017 [The Evolving Model for Building and Operating Nuclear Plants](#)
Nuclear Energy Institute
- 1-24-2017 [Update on the Nuclear Power Plant for Green River](#)
Emery County Progress
- 1-23-2017 [UAE's first nuclear power plant could begin operating in May](#)
The National
- 12-28-2016 [NCR issues licenses to Duke](#)

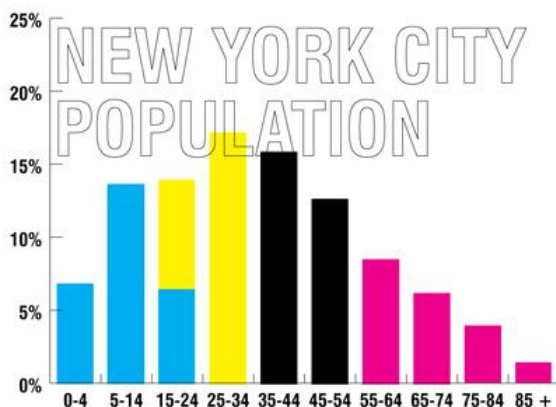
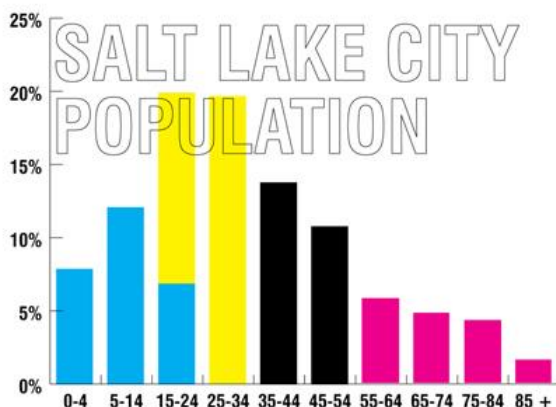
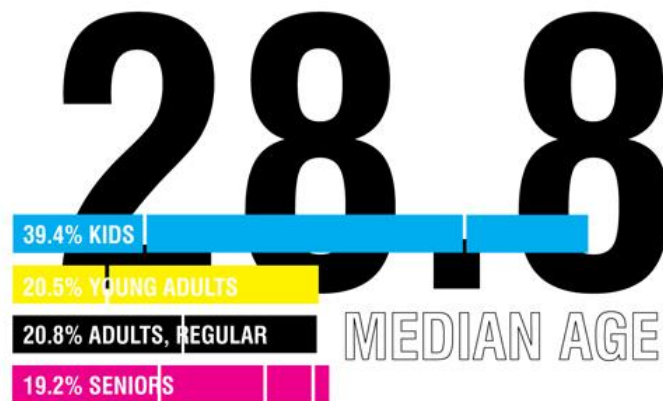
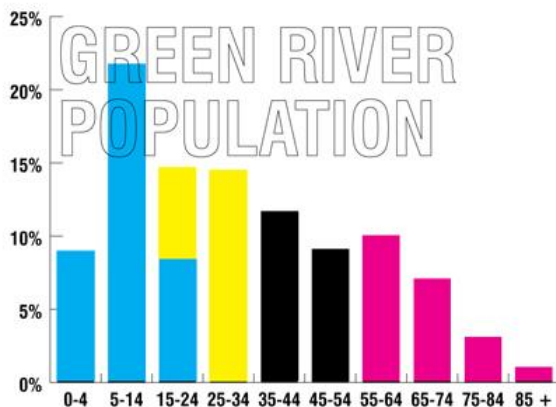


THUNDER BIRD
MARFA * TEXAS

AS A YOUNG PROFESSIONAL I HAVE
NO CLEAR PERCEPTION OF MY FUTURE
- I ONLY KNOW THAT IT DEPENDS
ON MY ENERGY, SELF-CRITICISM, DISCIPLINE,
AND PERMANENT DESIRE TO TRY.

601 West San Antonio, Marfa, TX
432.729.1984









RURAL & PROUD ★ SINCE 2009
EPICENTER

180
S BRADLEY

EPICENTER

OPEN















rcac.org

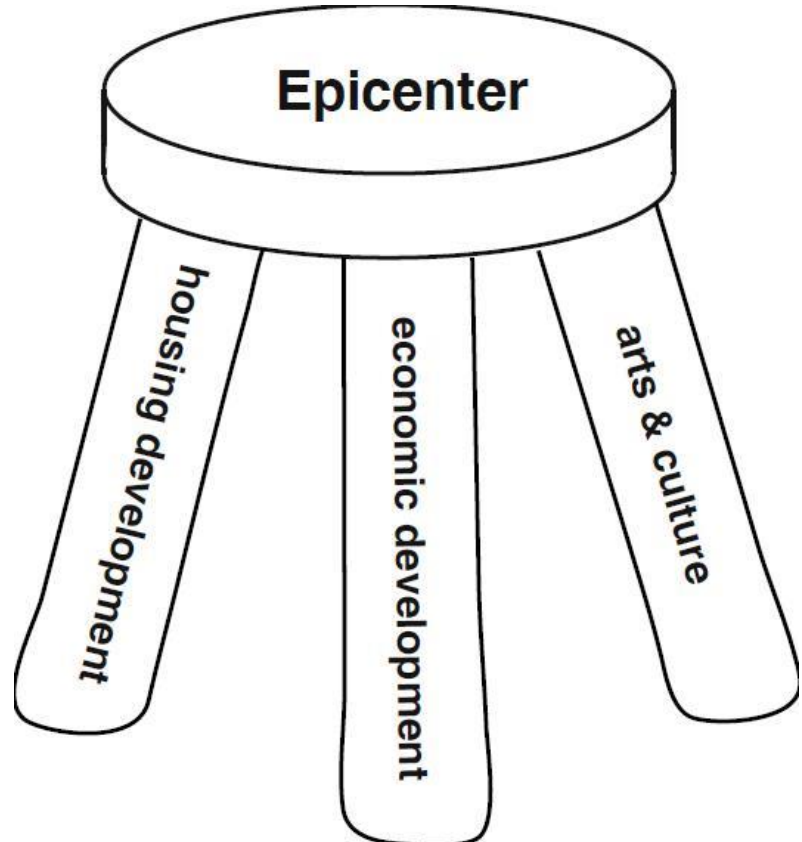
WealthWorks

USDA Rural Development: Rural Business Development Grant

HUD: Rural Capacity Building Grant

Epicenter's mission statement:

*To accentuate Green River's rural pride and pioneering spirit,
the Epicenter provides housing and business resources and promotes the arts.*

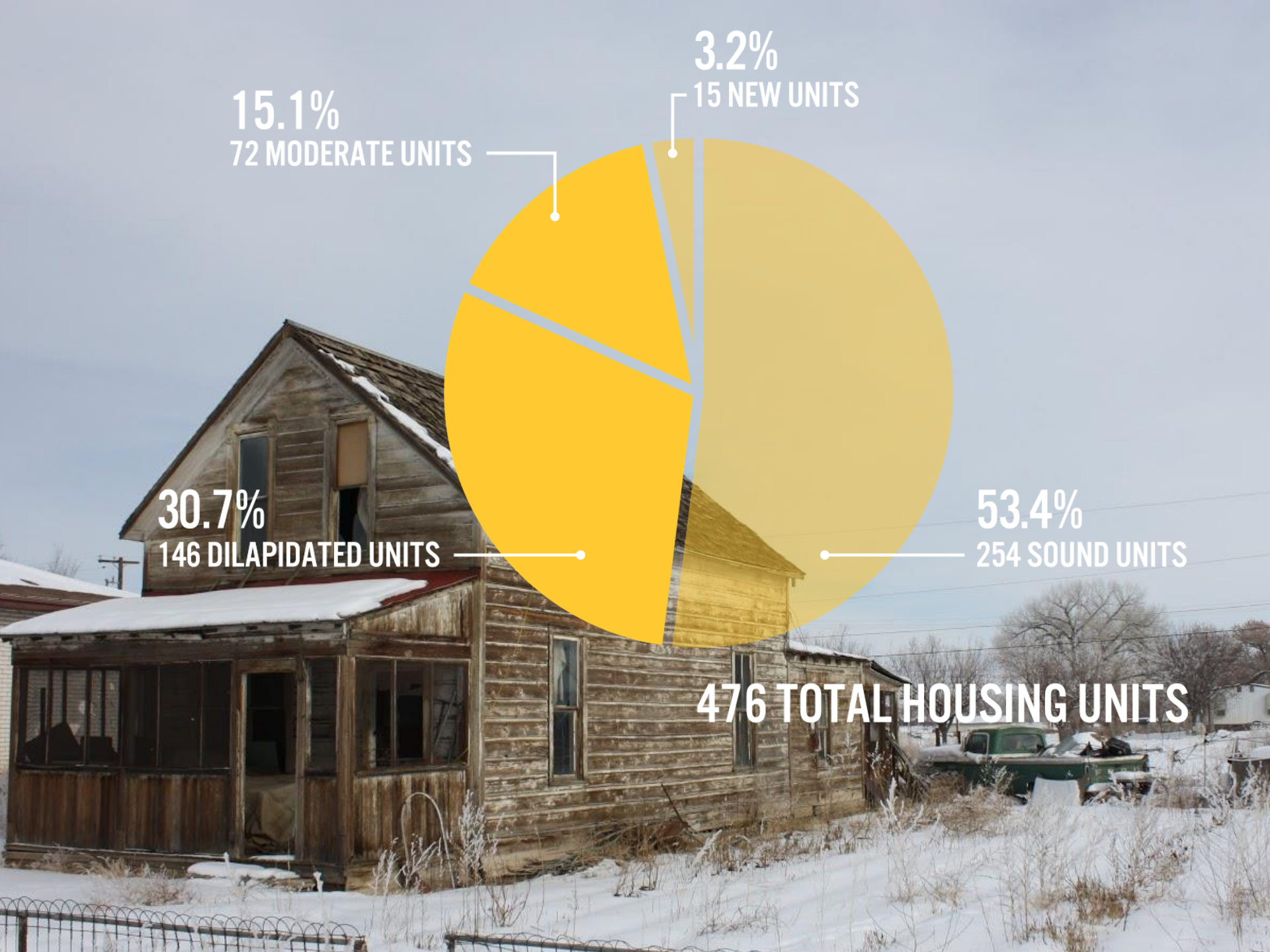












15.1%
72 MODERATE UNITS

3.2%
15 NEW UNITS

30.7%
146 DILAPIDATED UNITS

53.4%
254 SOUND UNITS

476 TOTAL HOUSING UNITS

GREEN RIVER HOUSING PLAN

Demographics

The population of Green River has declined slightly over the past ten years; dropping from 973 in 2000 to 952 in 2010 *Table 1*. In contrast the Hispanic or Latino population of the city has grown, increasing from 191 individuals in 2000 to 204 by 2010. The demand for housing is driven by changes in the number of households. An increase in the number of households typically generates a one-for-one increase in the demand for new housing units. In the case of Green River the number of households increased by only four in the past ten years. Consequently the demand for new housing has been limited. However, many residents are living in sub-standard conditions. Housing options do not exist in Green River.

Table 1
Demographic Characteristics of Green River

	2000	2010
Total Population	973	952
Hispanic or Latino	191	204
Not Hispanic or Latino	782	748
Total Households	329	333

Source: U.S. Census Bureau.

Table 2
Expected 10 year Growth Projection

	2010	2020
Population Projection	973	1152

Source: GOPB State of Utah

It is expected that in the next eight years there will be a total growth of 179 new residents. For the purposes of this analysis it is assumed that this is equivalent to about 61 new households needing a place to live based on the average household size of 2.89.

The lack of growth in population and households has resulted in little net in-migration of younger families. Consequently the population base has been very stable and has continued to age over the decade. In 2000 the median age was 28.8 years by 2010 the median had increased to 34.7 years, a remarkable increase in the median age *Table 3*.

Table 3
Population by Age for Green River

	2000	2010
Under 5 Years	88	76
5 to 9 years	107	88

Appendix A
Housing Quality Analysis in Green River, Utah (Windshield Survey 2011)

Housing Units (listed by Type)	Quantity	Condition New	Condition Sound	Condition Deteriorated	Condition Dilapidated	Percent in need of Rehabilitation
Total Number of Housing Units 476						
Traditional Construction Homes	301	12	209	44	36	24%
Modular Homes	30	3	22	5	0	16%
Single Wide Trailers	23	0	0	23	0	100%
Pre-1976 Trailers	110	0	0	0	110	100%
Rental Apartments	12	0	12	0	0	0%
Total	476	15	243	75	146	46%

Housing Quality Analysis conducted 6/2011 through 10/2011 by Chris Lezama, of Green River City with cooperation of Epicenter staff

USDA Rural Development provides the definitions of “sound,” “deteriorated,” and “dilapidated” that were used to evaluate as objectively as possible the conditions of the houses evaluated for the above Housing Quality Analysis. 100% of the houses in Green River were evaluated and recorded.

New - built within the last three years (2009-2012). These homes are considered “sound.”

Sound - a unit that appears new or well maintained and structurally intact. The foundation should appear structurally undamaged and there should be straight roof lines. Siding, windows, and doors should be in good repair with good exterior paint condition. Minor problems such as small areas of peeling paint and/or other maintenance items are allowable under this category.

	1 Person	2 Persons	3 Persons	4 Persons	5 Persons	6 Persons	7 Persons	8 Persons
30% of Median	12150	13900	15650	17350	18750	20150	21550	22950
50% of Median	20300	23200	26100	28950	31300	33600	35900	38250
80% of Median	32450	37050	41700	46300	50050	53750	57450	61150

HUD 2012 Income Limits, HUD.Gov

Affordability means that housing costs, either rent or mortgage payments (including principal, interest, taxes and insurance costs or PITI), cannot exceed 30% of income on a graduated scale based on family size.

Table 10
Housing Affordability for Income Classifications based on Household Size

	1 Person	2 Persons	3 Persons	4 Persons	5 Persons	6 Persons	7 Persons	8 Persons
30% of Median	304/mo.	348/mo.	391/mo.	434/mo.	469/mo.	504/mo.	539/mo.	574/mo.
50% of Median	507/mo	580/mo.	653/mo.	724/mo.	783/mo.	840/mo.	898/mo.	956/mo.
80% of Median	811/mo.	926/mo.	1043/mo.	1158/mo.	1251/mo.	1344/mo.	1436/mo.	1529/mo.

Table 9 demonstrates that a typical family of four at 50% of the area median income would make \$28,950 annually in Green River. That family could pay up to \$724 per month for rent or a mortgage. For truly affordable housing, housing available for a family living in poverty, rents would need to be less than \$434 per month as shown in Table 10. Rents appear to be higher than these affordable rents under the legal definition in Green River currently.

Implementation Strategy

Priority I: Single Family Rehabilitation

Develop a comprehensive rehabilitation program for all deteriorated and dilapidated owner occupied housing units first and second, interested, motivated owners of rental properties willing to rehabilitate and rent to low income Green River residents or current occupants.

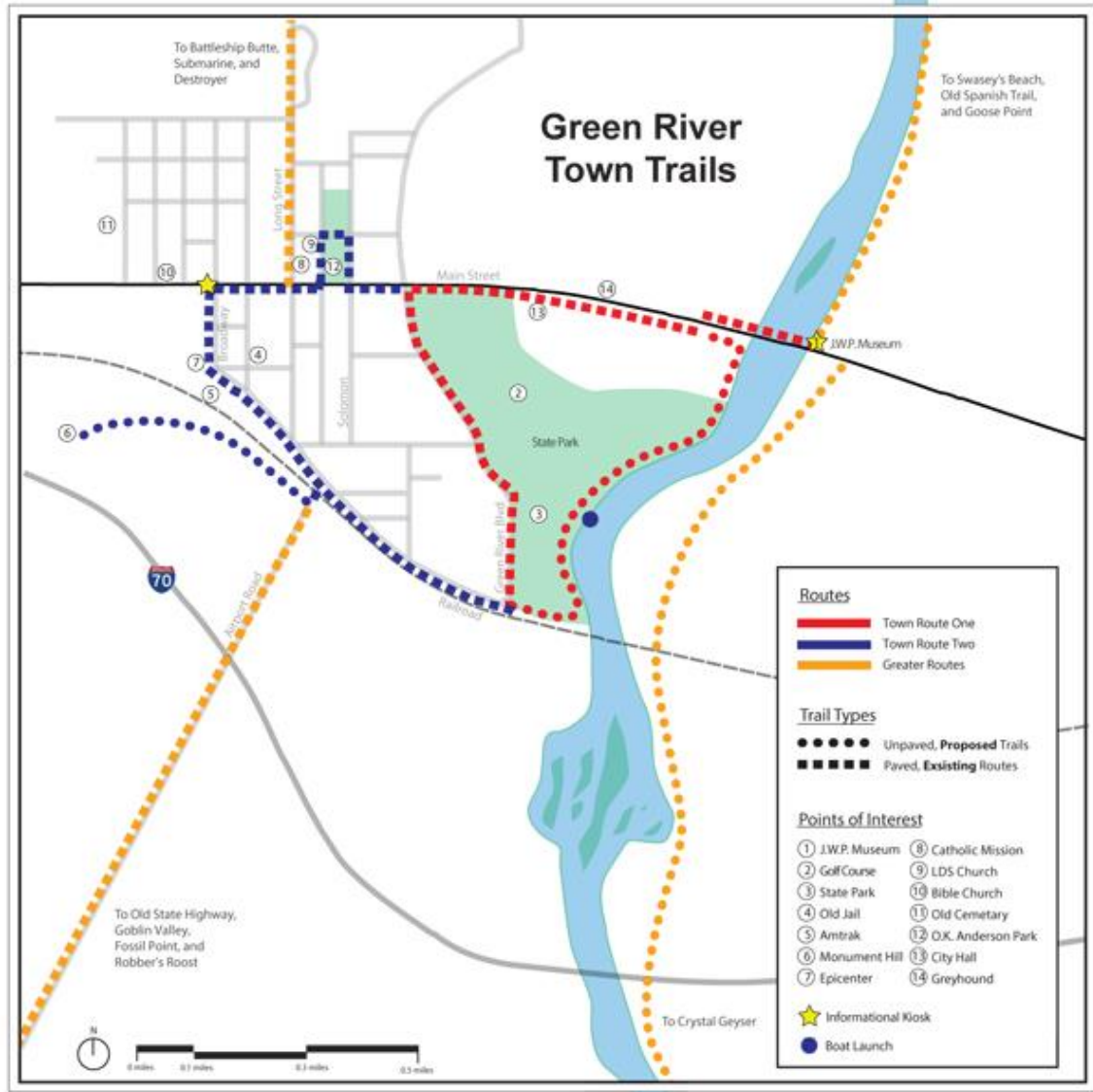
Develop a close working relationship with the Southeastern Utah Association of Local



This house was made more safe,
durable & efficient through
**FIX IT
FIRST**
435.564.3330







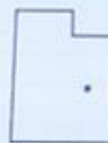






The Green River Newspaper

A PROJECT MADE IN COLLABORATION WITH THE COMMUNITY



MARCH 2013

18" x 24" x 10" x 10"

GREEN RIVER, UTAH, U.S.A.

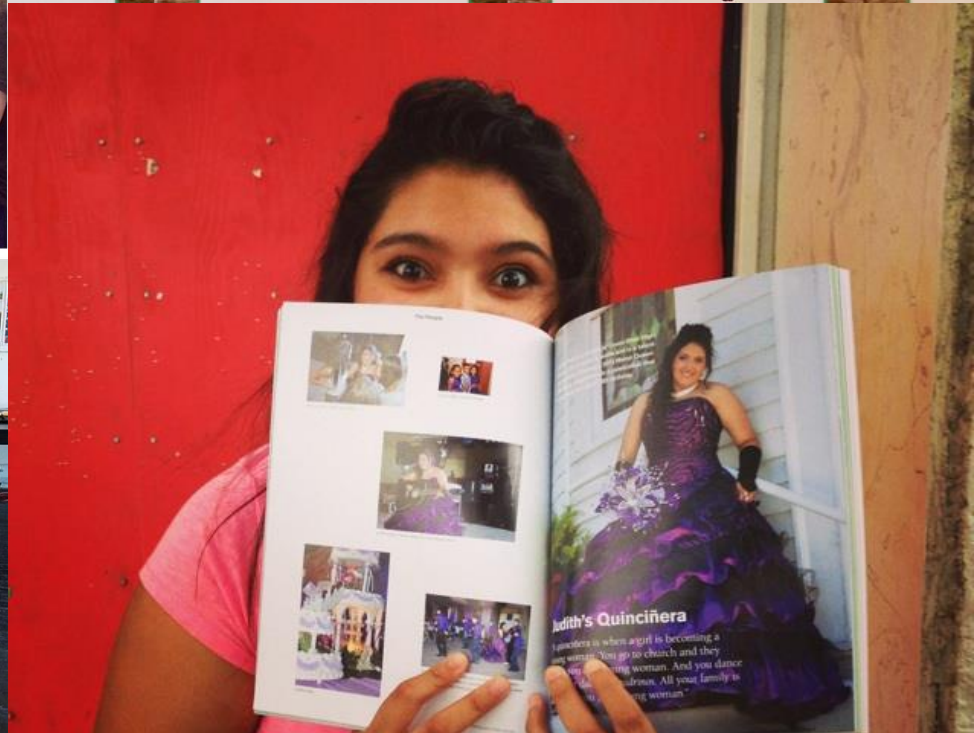
"Green River: Desert Jewel"

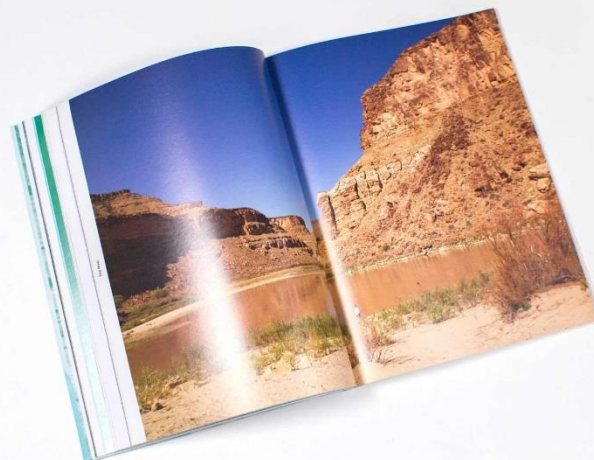
Vol. 1 Ed. 1



THE BOOK CLIFFS (Photo: [unreadable])

THIS IS THE PLACE









GREEN RIVER

Mobile Home Survey



SURVEY RESULTS

Average household size: 3.51

Home Ownership

There is interest (49%) in single-family homeownership and land ownership, but most feel they are unable to afford a new home or land.

A large majority of the residents (71%) would like to own the land the trailer occupies. Often respondents do not want to change their current living situation because they already own their own home, perceive alternatives as more expensive, and/or like their current location. The main reason people want to move away from Green River is because there are "no opportunities for kids," and they want their kids to go to a better school.

Average Utility Costs of Trailers Surveyed

	Summer	Winter	Average
Electricity	\$93.53	\$137.39	\$115.46
Propane	\$102.80	\$285.40	\$194.10
Total	\$196.33	\$422.79	\$309.56

*Winter months are defines as November through April and summer months as May through October.

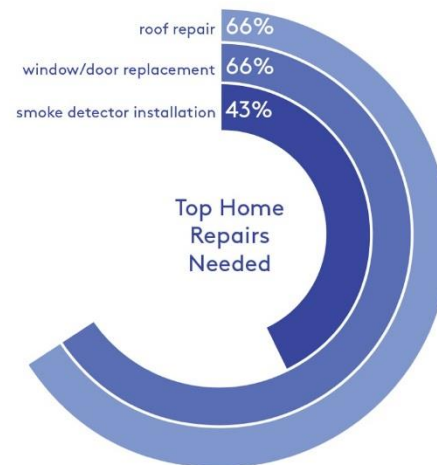
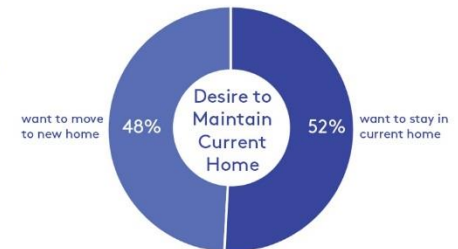
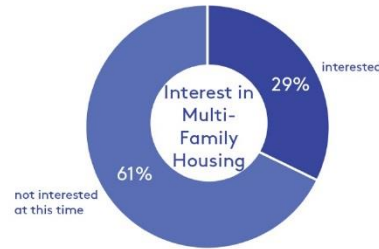
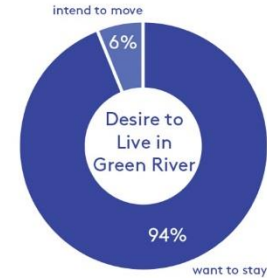
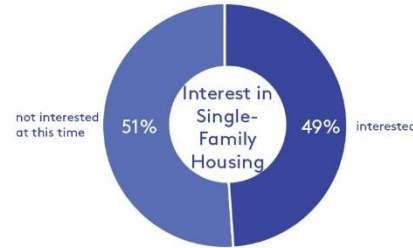
Cost of Housing

The average estimated monthly cost for housing of those surveyed is **\$569.55** [\$115.46 (electricity) + \$194.10 (propane) + \$10.00 (home maintenance) + \$250.00 (space rent)].

\$570 average monthly housing costs equates to \$6,835 annual housing costs. Based on an affordability rate of 30% spent on housing costs, a family would need to earn **\$22,783** in gross annual income (equating to a full-time hourly wage of \$10.95 for a household with a single earner) to have these housing costs be considered affordable.

Government Assistance

17% of household members acknowledge receiving government assistance. However, it is the belief of the author that the results of this question on governmental assistance are not accurate to the population. It is likely the stigma against being a recipient of governmental assistance and/or the misunderstanding of what is considered governmental assistance skewed the results.



SUGGESTED ACTIONS

1. With 69% of the homes built before 1976, a large investment in the homes will not return a value to the homeowners that can be realized. Any home confirmed to have been built prior to the establishment of the HUD Code in July 1976 should not receive investment in any other way than protection of life and property (smoke detectors), immediate and defined need (small roof repairs or window pane replacement), or accessibility (ramps and stairs).

2. The City of Green River should be presented this information through the venues of the Planning Commission, City Council, and city staff to educate the City representatives on the issues at hand and desires of the residents living in trailers. Once better understood, it is important to seek ideas and define actions the City can make through codes, licensing, enforcement, and incentives to reduce the number of substandard housing units in Green River.

3. The Fix It First and A Brush with Kindness home repair programs could expand their services to meet the defined needs of:

i. making roof repairs: 66% in need (17% rated "medium priority," 49% "high priority")

ii. replacing windows/doors: 66% in need (37% "medium," 29% "high")

iii. installing smoke detectors: 43% in need

iv. providing entrance accessibility: 43% in need (40% "medium," 3% "high")

v. fixing electrical issues: 51% in need (20% "medium," 31% "high")

vi. installing/replacing insulation: 46% in need (14% "medium," 31% "high")

Some respondents specifically knew of FIF or ABWK and requested follow up. Those respondents have been referred to those programs.

4. With 49% of respondents reporting interest in homeownership outside of trailers, outreach and education regarding housing options should be performed. Based on the monthly housing costs averaging \$570, alternatives would need to be comparable or less expensive to attract interest. Duplexes, townhomes, or condominiums, which appreciate in value over time, would serve to build household wealth while providing more durable, healthier, and safer housing. The development of housing models that meet desires of homeownership while still providing a sense of community and simultaneously simulate the independence trailers provide should be investigated.

5. More outreach should be performed regarding available social service programs. If it is accurate that only 17% of households received governmental assistance, there exists a population of households not connected to assistance programs that are likely eligible.

GREEN RIVER

Vernacular Housing Study & Best Practices



UTAH HOUSING TYPES

a brief overview

Green River includes numerous examples of historic Utah housing types dating back to the 1800s. These types include:



Hall-Parlor/Central Passage (1847-1910)

The hall-parlor type is rectangular in shape with a gabled roof. Entry is in the center of the length of the house. The plan consists of one large square room (the hall) and a smaller adjoining room (the parlor). The plan is asymmetrical, though the facade is symmetrical. Second or one-and-a-half story variations are common.



Homestead Temple (1900-1920)

The homestead temple form is similar to the hall-parlor except that the entry is located on the gable side of the house, often covered by a porch. They tended to be mass-produced in communities experiencing a population increase related to an economic boom of some sort.



Ranch (1945-1980)

The ranch style is a long rectangle that gathers living areas on one end and bedrooms connected by a central hall on the other. This style transferred outdoor emphasis from the front porch to the back yard. This style is one story only.



Cross-wing (1880-1910)

The cross-wing type features an "L" or "T" shaped floor plan. Entry is usually in the intersecting wing where the two wings meet. One-and-a-half story variations are common.



Bungalow (1905-1925)

The bungalow is rectangular in shape and features either an Arts and Crafts gabled or low-pitched Prairie School-style hip roof. They tend to be low to the ground and feature deep porches with battered half-walls that create a sense of refuge. One-and-a-half story variations are common.



Mobile Home (1950-)

Mobile homes exist in an awkward space between vehicle and house. They are treated as vehicles by state licensing agencies and like vehicles depreciate in value. Mobile homes are a narrow rectangle in plan and group living areas on one side and bedrooms connected by a narrow hall on the other.



Foursquare (1900-1920)

The foursquare is square in shape with a hip roof. Entry generally leads directly into a living area. The plan consists of four rooms of roughly equal size, though additions are often common, as are two- and one-and-a-half story variations.



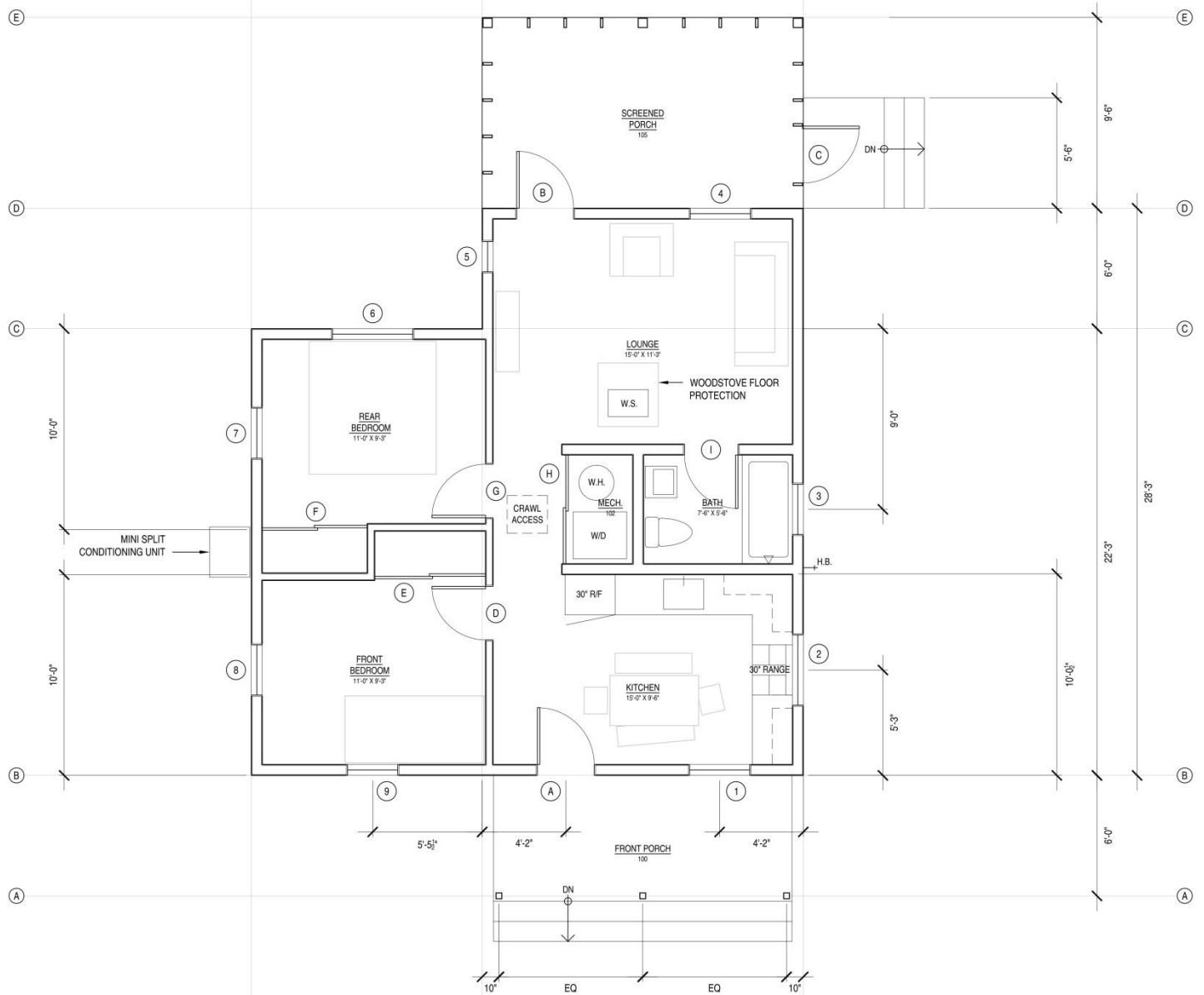
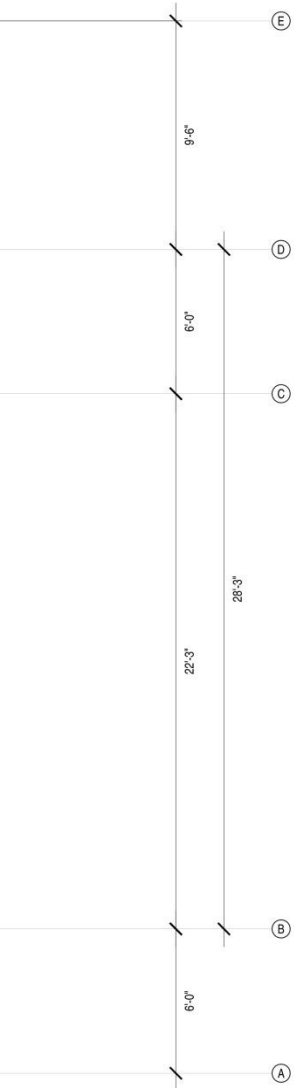
WWII-era Cottage (1940-1950)

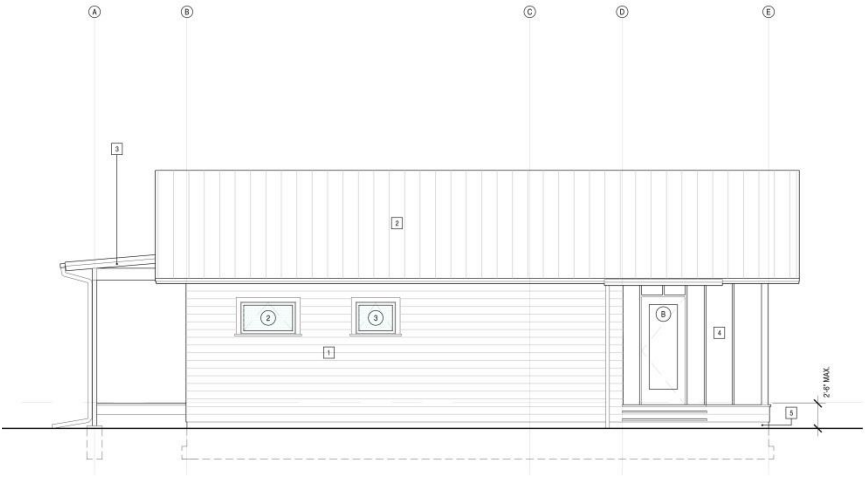
Variations of this cottage in Green River can be seen as a variation of the foursquare plan, but are rarely more than one story. They feature hip roofs or very shallow gables. Green River features several cottages built elsewhere and later moved to town.



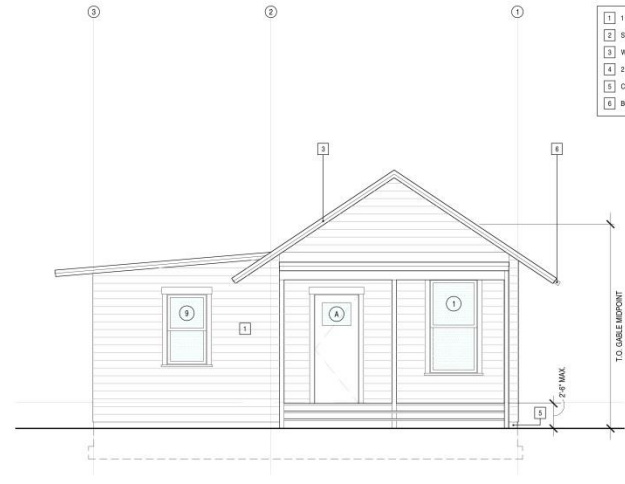
Manufactured Homes (1960-)

Manufactured homes represent a further in-between of mobile homes and traditional stick-built homes. Though more permanent than mobile homes, they exhibit the same long rectangular shape and plan with a ranch style facade.

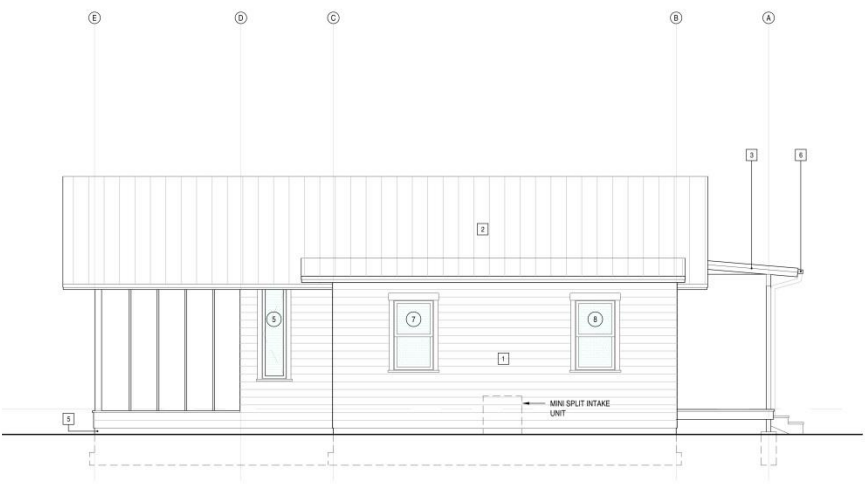




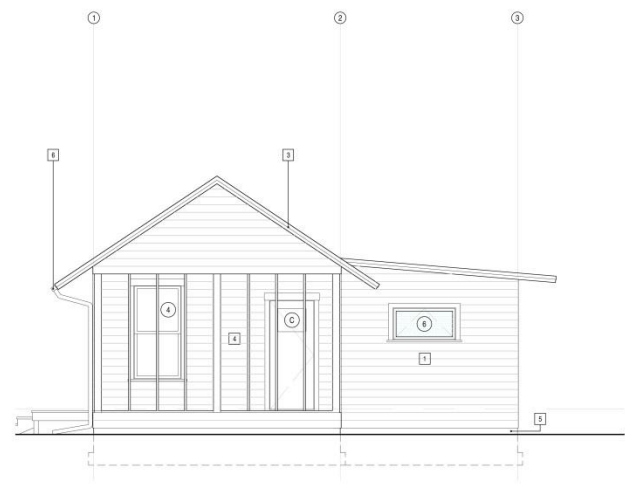
WEST ELEVATION 2
1/4" = 1'-0"



NORTH ELEVATION 1
1/4" = 1'-0"



EAST ELEVATION 4
1/4" = 1'-0"



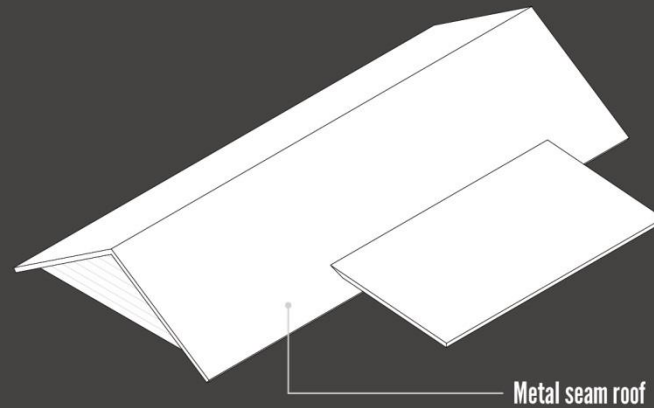
SOUTH ELEVATION 3
1/4" = 1'-0"

MATERIAL KEY

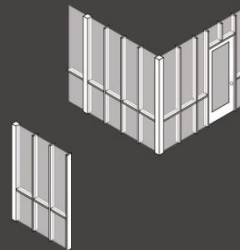
1	1 X 6 CEMENT BOARD SIDING
2	STANDING SEAM METAL ROOF
3	WOOD FASCH
4	2 X 6 STUDWALL W/ INSET SCREEN
5	CMU FOUNDATION WALL
6	BOX GUTTER

BUILDING ELEVATIONS

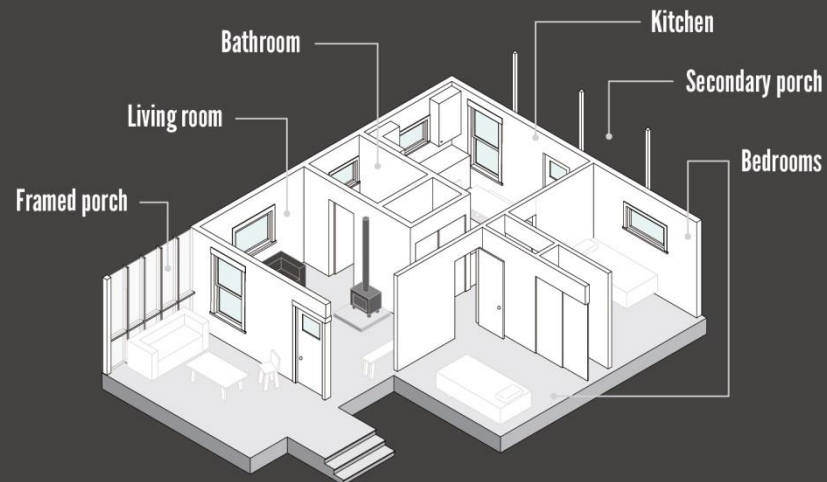
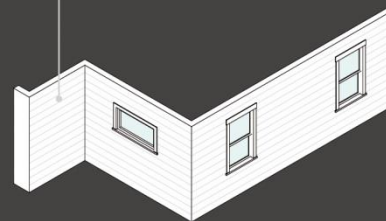
PROJECT NO: 00000
ISSUE: PERMIT SET
DATE: 7/31/16
REVISION:



Metal seam roof



Fiber cement board siding













Thank you.

Love,
Epicenter



Jack Forinash, Principal
jack@ruralandproud.org

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VENDOR LOCALITY

